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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Patrick Chiu

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7590

09/07/2004

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EXAMINER

KASSA, YOSEF

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 09/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/992,617

Applicant(s)

CHIU ET AL.

Examiner

YOSEF KASSA

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-25 is/are rejected.
- 7) ☒ Claim(s) 8-10 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 8, 11-22 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Szeliski et al (U.S. Patent 6,636,220).

With regard to claim 1, Szeliski et al discloses segmenting, i.e., dividing, a video into a plurality of video segments (see Fig. 15, item 1500); providing a video collage template (see Fig. 4) having at least one individual video frame (see col. 15, lines 51-57); associating a video segment (video clip) from plurality of video segments with individual video frame of video collage template (see col. 24, lines 9-13); and, producing, i.e., rendering, a video collage from video collage template and associated video segment (see col. 24, lines 17-26).

With regard to claim 2, Szeliski et al discloses selecting a plurality of video segments from said plurality of video segments (see Fig. 15, item 1502); and, associating each of said selected plurality of video segments with a respective

individual frame of said video collage (see col. 24, lines 17-26).

With regard to claim 3, Szeliski et al discloses providing a plurality of representative images, wherein each representative image represents one of plurality of video segments (see col. 13, lines 39-42); selecting a representative image from plurality of representative images (see col. 13, lines 92-45); and associating representative with individual video frame of video collage template (see col. 13, lines 45-55).

With regard to claim 4, Szeliski et al discloses providing a video segment template, wherein video segment template contains a plurality of representative images, wherein each representative image is associated with one of plurality of video segments (see col. 13, lines 39-49); and, wherein step of associating a video segment includes associating a representative image from plurality of representative images with individual video frame of video collage template (see col. 13, lines 51-55).

With regard to claim 5, Szeliski et al discloses step of segmenting video includes segmenting video into a selected number of segments (see col. 13, lines 29-36).

Claim 11 is similarly analyzed as claim 1.

With regard to claim 12, Szeliski et al discloses video segment associated with representative image may be viewed by selecting representative image (see col. 13, lines 45-50).

With regard to claim 13, Szeliski et al discloses video collage has a plurality of individual video frames (See Fig. 4), and wherein said plurality of individual

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video frames each contain a representative image, wherein each representative image is associated with a video segment (see col.15, lines 49-57).

With regard to claim 14, Szeliski et al discloses representative image is assigned an importance value based on a size of individual video frame in which said representative image is contained (see col. 13, lines 55-67).

With regard to claim 15, Szeliski et al discloses wherein a length of video segment associated with representative image is reduced based on importance value (see col. 13, lines 55-67).

With regard to claim 16, Szeliski et al discloses representative image is associated with a feature vector, i.e., fixed length video (see col. 13, lines 57-66).

With regard to claim 17, Szeliski et al discloses wherein a value of feature vector is determined based on a size of individual video frame and a content activity of associated video segment (see col. 13, lines 55-67).

With regard to claim 18, Szeliski et al discloses wherein a length of representative image is reduced based on a value of feature vector (see col. 13, lines 57-66).

Claim 19 is similarly analyzed as claim 1.

With regard to claim 20, Szeliski et al discloses wherein video segment selection device is used for selecting a representative image and inserting selected representative image into said at least one individual video frame (see col. 14, lines 11-19).

Claim 21 is similarly analyzed as claim 1. As to the additional limitation of a processor, and a processor readable storage medium in communication with

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said processor (see col. 10, lines 24-30), containing processor readable program code for programming the apparatus (see col. 11, lines 35-47).

Claim 22 is similarly analyzed as claim 2.

Claim 23 is similarly analyzed as claim 5.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szeliski et al (U.S. Patent 6,636,220), and further in view of Bhanu et al (U.S. Patent 5,048,095).

With regard to claim 6, while Szeliski et al discloses step of segmenting video image, he is silent about segmenting video using a Genetic Segmentation Algorithm ("GSA"). However, at the same field of endeavor, Bhanu et al teaches this feature (see col. 4, lines 4-12). At the time of the invention was made, it would have been obvious to incorporate the teaching of Bhanu et al genetic algorithm image segment process into Szeliski et al system. The motivation doing so is to provide genetic algorithm image segmentation, which allows the segmentation algorithm to overcome changes in image characteristics caused by

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variable environmental conditions.

Claim 24 is similarly analyzed as claim 6.

3. Claims 7 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Szeliski et al (U.S. Patent 6,636,220), Bhanu et al (U.S. Patent 5,048,095), and further in view of Uchihachi et al (U.S. Patent 6,535,639).

With regard to claims 7 and 25, Szeliski et al and Bhanu et al are silent about compacting associated video segment. However, at the same field of endeavor, Uchihachi et al taught this feature (see Fig. 3, item 350). At the time of the invention was made, it would have been obvious to incorporate the teaching of Uchihachi et al packing segmented video image into Szeliski et al system. The motivation doing so is to provide clustering the frames of the video based on a common attribute and matching criteria or algorithm.

Claim 25 is similarly analyzed as claim 7.

#### ***Allowable Subject Matter***

4. Claims 8-10 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Other Prior Art Cited***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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US Patent No. (6,098,082) to Gibbon et al disclose method for automatically providing a compressed rendition...

US Patent No. (6,400,890) to Nagasaka et al disclose image retrieving method and apparatuses therefor.

US Patent No. (6,014,183) to Zhang et al discloses method and apparatus for detecting scene changes in a digital video stream.

US Patent No. (5,995,095) to Ratakonda disclose method for hierarchical summarization and browsing of digital video.

US Patent No. (6,195,458) to Warnick et al disclose method for content based temporal segmentation of video.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF KASSA whose telephone number is (703) 306-5918. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BHAVESH MEHTA can be reached on (703) 308-5246. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306 for regular communication and (703) 872-9306 for after Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone



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number is (703) 306-5631. The group receptionist number for TC 2600 is (703)

305-4700.

**PATENT EXAMINER**

Yosef Kassa

08/26/04.

A handwritten signature in black ink, appearing to read 'Yosef Kassa', is written over the printed name. The signature is fluid and cursive, with a long horizontal stroke at the end.